

Texaco, Inc. Shreveport Works Site AI 4399

AOI Phase 1 Characterization Report Fact Sheet

Shreveport, Louisiana

September 2003



Introduction

The Texaco, Inc. Shreveport Works site consists of approximately two hundred sixty acres and is located within the city limits of Shreveport, Louisiana. The site is bordered by the Shreveport-Barksdale Highway to the south, the Clyde Fant Parkway to the east, and by Old River Bayou to the north and west. The property, currently called Anderson Island, includes residential neighborhoods, a park, and commercial properties.

Texaco operated the Texaco, Inc. Shreveport Works topping plant and tank farm at Anderson Island from approximately 1911 to 1939. The topping plant distilled fuels such as gasoline, kerosene, and diesel from crude oil. The portion of the crude remaining after extracting the fuels was shipped to another facility in Texas by pipeline. Petroleum and petroleum products such as gasoline and diesel fuel were transported to and from the site by rail and pipeline. There were forty-two 37,500 barrel storage tanks at this facility. Texaco dismantled the topping plant in 1940 and sold the property to Mr. Alexander Knight in 1941. Texaco leased thirty acres of the site from Mr. Knight and continued operating the pipeline until 1945. Mr. Knight began residential development of the property in the early 1950's. Residential development was essentially complete by 1980.

The Louisiana Department of Environmental Quality (DEQ) conducted limited sampling events within the Anderson Island area on three separate occasions between October 1997 and August 1998. These sampling events focused on the former facility features most likely to be associated with hydrocarbon releases. DEQ conducted these sampling events because of concerns raised by the residents of Anderson Island regarding past Texaco operations in their community. Soil and sediment samples were tested for a broad range of organic and inorganic compounds at twenty-five on-site locations and two background (off-site) locations. These test results detected petroleum hydrocarbons in a few of the soil samples. Although the levels of total petroleum hydrocarbons found in these early investigations are not a health hazard, DEQ regulations that went into effect in December of 1998 (Risk Evaluation/Corrective Action Program) required further testing to determine the extent of this hydrocarbon material.

DEQ and Texaco Incorporated (now ChevronTexaco) entered into a cooperative agreement to conduct additional testing at Anderson Island. A cooperative agreement is a type of legally enforceable contract often used by DEQ to manage investigations and corrective actions at former industrial facilities. ChevronTexaco, through its contractors, conducted testing required by the DEQ approved Site-Wide Characterization Work Plan and the subsequent AOI Phase I Characterization Work Plan under direct supervision and oversight by DEQ personnel. These work plans focused on sampling at the locations of former facility features, such as petroleum storage tanks, that may have been potential sources for residual petroleum in soils at the site. A detailed description of this phased investigation may be found in the Site-Wide Characterization Work Plan, the Site-Wide Characterization Report, AOI Phase I Characterization Work Plan, and the AOI Phase I Characterization Report (See Document Availability below).

Total Petroleum Hydrocarbons

Crude oil, or petroleum, is a mixture of hundreds of different hydrocarbon compounds. During the refining process, crude oil is separated into smaller groups of hydrocarbon compounds generally through distillation. Several of these different separated hydrocarbon compound groups are then blended together to form individual commercial products such as gasoline, diesel fuel or motor oil. DEQ and ChevronTexaco tested soil and sediment for these hydrocarbon compound groups on the site through tests called Total Petroleum Hydrocarbon Fraction analysis and Indicator Compound analysis.

Site Investigation Process

At DEQ, the investigation of a site normally begins with preliminary investigations called Site Assessment Phase 1 and Site Assessment Phase 2 evaluations. During the Site Assessment Phase 1 evaluation, background site information such as maps, aerial photographs, property ownership records, and corporate records are researched and collected. Personnel inspect the site for former facility features, possible sources of contamination, and any obvious visible contamination.

In the Site Assessment Phase 2 evaluation, a limited number of environmental samples are collected at the site and analyzed at a laboratory for a broad spectrum of chemical compounds. The number of samples collected at a site may range from as few as five to as many as twenty locations. These laboratory sample results are evaluated to determine whether further environmental investigation will be required at the site and to identify the laboratory tests required for future samples. DEQ completed the site assessment portion of the investigation and published the result in a combined report in May of 1999.

The next step in the investigation is a comprehensive characterization of the entire site called the Remedial Investigation. The work required to perform this investigation is detailed in a work plan. The Texaco, Inc. Shreveport Works Site is now in this stage of site investigation.

The Remedial Investigation at the Texaco, Inc. Shreveport Works site was divided into phases. The first phase work was described in the Site-Wide Characterization Work Plan. The field work required by this work plan was completed in April 2001. Samples were collected from fifty-seven locations at or near all former facility features that were not sampled during the Site Assessment sampling events. Additional samples were collected from past and present surface drainage pathways. These sample results and an evaluation of all site data were reviewed and approved by DEQ in the Site-Wide Characterization Report. This report identified areas of the site that required further testing (Areas of Interest) as well as areas not requiring further evaluation or investigation. Approximately seventy-nine percent of the land parcels located within the area investigated by the Site-Wide Characterization Work Plan did not require further sampling or evaluation. Hydrocarbon contaminated soil in excess of DEQ's soil screening levels was found at seven locations at depths between seven and twenty-one feet below the ground surface. Although the levels of total petroleum hydrocarbons found are not a health hazard at these depths, DEQ's Risk Evaluation/Corrective Action Program (RECAP) regulation required further soil testing to determine the extent of this hydrocarbon material.

Seven areas from the Site-Wide Characterization and six areas from the Site Assessment phase of the site investigation were identified as Potential Areas of Interest (AOIs) in the Site-Wide Characterization Report. The AOI Phase I Characterization Report described the surface and subsurface soil sampling completed in May of 2002 at the thirteen Areas of Interest. The purpose of this phase of soil testing was to determine the boundaries of the hydrocarbon contamination in these thirteen areas. Investigative samples were collected from fifty-two boreholes for laboratory analysis. Quality assurance samples were also collected and analyzed to evaluate the accuracy of the investigative sample results. Five AOIs consisting of forty-eight land parcels were eliminated from further environmental evaluation through the testing completed in this phase of the investigation. The AOI Phase I Characterization Report is available for public review at the Shreve Memorial Library, Broadmoor Branch. A summary of important dates and events may be found on the back of the enclosed map of the Areas of Interest.

Current Status

An AOI Phase II Characterization Work Plan is currently being developed. The purpose of this phase of soil testing is to determine the boundaries of the hydrocarbon contamination in these eight remaining areas. ChevronTexaco, through its contractors, will conduct the testing required by the DEQ approved work plan under direct supervision and oversight by DEQ personnel. Additional ecological evaluation and/or testing of the sediment in the bayou system may be required. Test results and an evaluation of each AOI will be submitted to DEQ for review and approval in the Site Investigation Report within one hundred five days of the completion of all tasks required by the AOI Phase II Characterization Work Plan.

However, due to uncertainties always associated with shallow subsurface geology, some land adjacent to the remaining Areas of Interest identified in the AOI Phase 1 Characterization Report could require additional sampling. The soil and groundwater sampling required by the AOI Phase II Characterization Work Plan will be completed before the end of this year.

Document Availability

Copies of the cooperative agreement, the Site-Wide Characterization Work Plan, the Site-Wide Characterization Report, AOI Phase I Characterization Work Plan, and the AOI Phase I Characterization Report are available for public review in Shreveport at the **Shreve Memorial Library, Broadmoor Branch located at 1212 Captain Shreve Drive**. The AOI Phase II Characterization Work Plan and the resulting Site Investigation Report will be made available for public review at this same location as soon as they are reviewed and approved by DEQ. The public is encouraged to review these documents in order to gain a more comprehensive understanding of the site.

For More Information:

On the Web... www.deq.state.la.us/remediation/index

To view the DEQ's regulations applicable to site investigation, evaluation, and cleanup see:

Risk Evaluation/Corrective Action Program (RECAP) regulation.
Title 33: Part VI. Inactive and Abandoned Sites Regulations.

For more information about the Texaco, Inc. Shreveport Works site, please contact:

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